

CLAIMS:

1. A cleaning apparatus comprising:
a cleaning element;
a synchronizer that places a predetermined section of the cleaning element in
alignment with a respective ejector; and
an actuator that moves the cleaning element against the ejector with which the
respective portion of the cleaning element has been aligned to clean
the ejector.
2. The apparatus of claim 1 wherein the cleaning element services at least
two ejectors and a respective portion of the cleaning element is dedicated to each of the at
least two ejectors.
3. The apparatus of claim 2 wherein the at least two ejectors are printheads
of an ink jet printer.
4. The apparatus of claim 3 wherein the at least two ejectors comprise at
least four ejectors in a color ink jet printer.
5. The apparatus of claim 1 wherein the cleaning element services at least
one ejector applying at least one fluid that possesses at least two properties and respective
portions of the cleaning element are dedicated to each of the at least two properties.
6. The apparatus of claim 5 wherein the at least one fluid is ink and the at
least two properties are colors so that a respective portion of the cleaning element is
dedicated to each color of ink.

7. The apparatus of claim 6 wherein there are at least four colors.
8. In an inkjet printer including a plurality of printheads, a printhead cleaning apparatus comprising:
 - a cleaning element for the plurality of printheads;
 - a synchronizer that places a predetermined section of the cleaning element in alignment with a respective one of the plurality of printheads; and
 - an actuator that moves the cleaning element against the plurality of printheads to clean the respective printhead with which the respective portion of the cleaning element has been aligned.
9. The apparatus of claim 8 wherein the cleaning element services at least four printheads and a respective portion of the cleaning element is dedicated to each of the at least four printheads.
10. The apparatus of claim 9 wherein the inkjet printer is a color inkjet printer and the at least four printheads are arranged in the color ink jet printer.
11. The apparatus of claim 8 wherein at least one printhead applies at least one fluid that possesses at least two properties and respective portions of the cleaning element are dedicated to each of the at least two properties.
12. The apparatus of claim 11 wherein the at least one fluid is ink and the at least two properties are colors so that a respective portion of the cleaning element is dedicated to each color of ink.
13. The apparatus of claim 12 wherein there are at least four colors.

14. The apparatus of claim 8 wherein the plurality of printheads ejects at least one fluid that possesses at least two properties and respective portions of the cleaning element are dedicated to each of the at least two properties.

15. The apparatus of claim 8 wherein the synchronizer comprises an actuator responsive to a rotary encoder associated with the cleaning element.

16. The apparatus claim 8 wherein the synchronizer comprises an actuator responsive to a light sensor associated with the printhead.

17. A method of cleaning a plurality of ejectors comprising:
providing a cleaning element;
allocating sections of the cleaning element for use with respective ejectors;
aligning an allocated section of the cleaning element with its respective ejector;
and
moving the cleaning element against the respective ejector with which the
respective portion of the cleaning element has been aligned, thereby
cleaning the ejector.

18. The apparatus of claim 17 wherein the plurality of ejectors are printheads of an ink jet printer.

19. The apparatus of claim 17 wherein the plurality of ejectors comprise at least four printheads in a color ink jet printer.

20. A method of cleaning at least one ejector comprising:
providing a cleaning element;
allocating sections of the cleaning element for use with respective ejected fluids
that the at least one ejector ejects;
aligning an allocated section of the cleaning element with an ejector from which
its respective ejected fluid has been ejected; and
moving the cleaning element against the ejector with which the respective portion
of the cleaning element has been aligned, thereby cleaning the ejector.
21. The method of claim 20 wherein the ejected fluids possess properties that,
were the ejected fluids to be mixed, would produce undesirable results.
22. The method of claim 20 wherein the ejected fluids comprise ink and the
properties comprise colors so that a respective portion of the cleaning element is
dedicated to each color of ink.
23. The method of claim 22 wherein the properties comprise at least four
colors.
24. The method of claim 20 further comprising establishing an initial position
of the cleaning roller, establishing an initial position of the printhead, and ensuring that a
proper allocated section of the cleaning roller be aligned with its respective printhead
when printhead and cleaning roller collide.
25. The method of claim 24 further comprising associating a rotary encoder
with a cleaning roller motor.

26. The method of claim 24 further comprising associating a translation sensor with the printhead.

27. The method of claim 26 wherein the translation sensor is a linear encoder.

28. The method of claim 24 further comprising providing a light sensor associated with one of the cleaning roller and the printhead.

29. The method of claim 28 further comprising providing a flag on a drive gear of the cleaner roller, and providing a light sensor comprises arranging a light interrupt sensor responsive to the flag.

30. The method of claim 24 further comprising providing a cleaning sump into which the roller travels and deposits material cleaned from the at least one ejector.